IN THE CLAIMS

Please cancel claims 1-13 and add new claims 14-33.

14. A diaphragm pump comprising a two part casing formed of a front cover and a back cover, a diaphragm plate extending across the covers and being secured therebetween wen the covers are fastened together, the diaphragm plate having a plurality of similarly defined circular regions, the front cover having substantially axially aligned inlet and outlet ports, each leading to mutually exclusive inlet and outlet chambers respectively, a valve housing securable inside the front cover and having defined therein an outlet dished valve seat with a correspondingly concave resilient valve seated therein, the outlet valve seating having fluid passages therethrough, and a plurality of inlet valve seats, equal in number to the number of regions, each being similarly dished and having a correspondingly concave resilient valve seated therein, each inlet valve seat having fluid passages therethrough, the outlet valve being in fluid communication with the outlet chamber and the inlet valves being in fluid communication with the inlet chamber, and a wobble plate positioned in the back cover and having a central boss and a plurality of similar piston sections equal in number to the number of circular regions on the diaphragm, the piston sections and circular regions being correspondingly secured together, the wobble plate being subject to nutating motion to cause reciprocating action by the circular regions and provide a pumping action, the wobble plate boss seating and holding a bearing, the bearing having been insert moulded in the boss with the boss having an inwardly-extending retaining flange over the bearing.

15. A pump as claimed in Claim 14, wherein the circular regions of the diaphragm are each provided with an outstanding lug formation and the mating surfaces of the piston sections of the wobble plate are provided with complimentary shaped slots, the securement being formed when the lug formation of each region is engaged in the slot of the corresponding piston section.

16. A pump as claimed in Claim 15, wherein the lug formation of each diaphragm and the slot of each corresponding piston section is of cruciform shape.

17. A pump as claimed in Claim 15 wherein the outer ends of the lug formation are of greater length than the slots to provide a locking means in the slots.

18. A pump as claimed in Claim 16, wherein the outer ends of the lug formation are of greater length than the slots to provide a locking means in the slots.

19. A pump as claimed in Claim 14, wherein a rear diaphragm support plate is provided in the back cover, the support plate having an equal number of similar apertures to the numbers of circular regions, each aperture having a walled surround, the circular regions fitting into respective apertures and being supported thereby.

20. A pump as claimed in Claim 14, wherein the casing is secured to an electric motor with its drive shaft connected via an eccentric to the bearing.

21. A pump as claimed in Claim 19, wherein the casing is secured to an electric motor with its drive shaft connected via an eccentric to the bearing.

22. A pump as claimed in Claim 20, wherein the casing has a mounting bracket with a series of mounting feet fitted thereto, the feet each being substantially ovoid in plan and of resilient material, the greater dimensioned end having an upstanding headed stub pillar, each piller mating in a open slot in the bracket, the slot being narrower at its open end to hold the respective foot in its slot.

23. A pump as claimed in Claim 14, wherein the valve housing is fixed to the front cover by a screw.

24. A pump as claimed in Claim 15, wherein the valve housing is fixed to the front cover by a screw.

25. A pump as claimed in Claim 19, wherein the valve housing is fixed to the front cover by a screw.

26. A pump as claimed in Claim 22, wherein the valve housing is fixed to the front cover by a screw.

27. A pump as claimed in Claim 14, further comprising an integral pressure switch provided in the back cover with the diaphragm plate being provided with a fifth defined circular region, smaller than the others, the rear diaphragm support plate having a similarly shaped aperture with wall surround to accommodate a micro-switch actuated by movement of the fifth circular region serving as a pressure switch pad, the electrical wires to the micro-switch being fed internally from the front face of the motor.

28. A pump as claimed in Claim 15, further comprising an integral pressure switch provided in the back cover with the diaphragm plate being provided with a fifth defined circular region, smaller than the others, the rear diaphragm support plate having a similarly shaped aperture with wall surround to accommodate a micro-switch actuated by movement of the fifth circular region serving as a pressure switch pad, the electrical wires to the micro-switch being fed internally from the front face of the motor.

29. A pump as claimed in Claim 19, further comprising an integral pressure switch provided in the back cover with the diaphragm plate being provided with a fifth defined circular region, smaller than the others, the rear diaphragm support plate having a similarly shaped aperture with wall surround to accommodate a micro-switch actuated by movement of the fifth circular region serving as a pressure switch pad, the electrical wires to the micro-switch being fed internally from the front face of the motor.

30. A pump as claimed in Claim 20, further comprising an integral pressure switch provided in the back cover with the diaphragm plate being provided with a fifth defined circular region, smaller than the others, the rear diaphragm support plate having a similarly shaped aperture with wall surround to accommodate a micro-switch actuated by movement of the fifth circular region serving as a pressure switch pad, the electrical wires to the micro-switch being fed internally from the front face of the motor.

31. A pump as claimed in Claim 14, wherein the valve housing, on the same side as the inlet valve seats are positioned, is provided with a track leading from a hole exiting on that side and centrally provided in the outlet valve seat provided on the opposite side, the track mating with a corresponding track provided on the diaphragm plate, the mated tracks forming a passage between the hole and the fifth circular region whereby any fluid leaving the outlet chamber when under pressure through the screw travels along the passage and fills a void at the pressure pad on the opposite side of the diaphragm plate from the pressure switch causing activation of the micro-switch to stop the pump.

32. A pump as claimed in Claim 19, wherein the valve housing, on the same side as the inlet valve seats are positioned, is provided with a track leading from a hole exiting on that side and centrally provided in the outlet valve seat provided on the opposite side, the track mating with a corresponding track provided on the diaphragm plate, the mated tracks forming a passage between the hole and the fifth circular region whereby any fluid leaving the outlet chamber when under pressure through the screw travels along the passage and fills a void at the pressure pad on the opposite side of the diaphragm plate from the pressure switch causing activation of the micro-switch to stop the pump.

33. A pump as claimed in Claim 22, wherein the valve housing, on the same side as the inlet valve seats are positioned, is provided with a track leading from a hole exiting on that side and centrally provided in the outlet valve seat provided on the opposite side, the track mating with a corresponding track provided on the diaphragm plate, the mated tracks forming a passage between the hole and the fifth circular region whereby any fluid leaving the outlet chamber when under pressure through the screw travels along the passage and fills a void at the pressure pad on the opposite side of the diaphragm plate from the pressure switch causing activation of the micro-switch to stop the pump.